10

and a board, a work of dividing the board after soldering, warping of the board during the probing test, handling and so on.

With utilization of a lead-free Sn-Aq-Bi 5 alloy solder of low toxicity, it is possible to obtain sufficient bonding strength by forming adequate fillets while ensuring sufficient wettability, for example, at 220-240° and to ensure resistance to formation of whiskers, etc.

Soldering electronic devices with utilization of an Sn-Ag-Bi solder makes it possible to obtain an interface which has sufficient bonding strength and to ensure wettability which is sufficient for practical use. There is no problem in resistance to formation of 15 whiskers. Thus it is possible to realize lead-free electrical appliances which are environmentally friendly by using the same equipment and process as conventionally.